UNIVERSITY OF ALGARVE

FACULTY OF ECONOMICS

THE IMPACT OF CORPORATE GOVERNANCE ON CAPITAL STRUCTUTRE

AZIZ OULHIM

Master Dissertation

Masters in Financial Economics

Supervisor:

Professor Dr. Fernando Manuel Félix Cardoso

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Work Authorship Declaration

I declare to be the author of this work, which is unique and unprecedented. Authors and works consulted are properly cited in the text and are in the listing of references included.

AZIZ OULHIM

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To my mother

ACKNOLEDGEMENT

First and foremost and always my gratitude to God who helped me to achieve this level of knowledge, I’m grateful for gift of life and good health he gave me to be able to complete this work.

I would like to thank my supervisor Dr. Fernando Manual Felix Cardoso for his guidance, encouragement and support and especially his confidence on me regarding this research project. My gratitude goes also for my family who supported me morally and financially.

Thanks to all my friends for their help. Also, to the Algarve University that provided us all the tools for success.

ABSTRACT

This study integrates various strands of the literature and examines the impact of corporate governance quality on capital structure. Quantitative research design is used for this empirical study. Sample consists of panel data of the non-financial sector companies listed at Pakistan stock exchange over different periods. The data of the variables of interest are collected from annual reports published by companies and the publications of state bank of Pakistan. The companies are selected by taking a representative sample from the whole non-financial sector.

The results reveal that board size is negatively and significantly related to debt ratio in case of Pakistani listed firms operating in non-financial sector. The negative relationship was found between return on asset (ROA) and debt to equity ratio which suggests that Pakistani firms earn higher returns on assets and such firms rely more on internal financing resulting in less use of debt. Liquidity shows a strong negative association with debt to equity. As for firm size a positive and a significant association with debt to equity was observed.

The findings of the study suggest that the corporate governance is statistically significant and negatively related to capital structure. This implies that sound corporate governance firms pursue lower leverage to avoid financial risk and dilution of powers.

The findings of the study will help the firm managers in achieving an optimal level of capital structure. It also helps the regulatory authorities in making lows and providing institutional support to make corporate governance mechanisms more effective.

KEYWORDS: capital structure, debt to equity ratio, leverage, corporate governance, Pakistan, non-financial sector.

RESUMO

Este estudo integra várias vertentes da literatura e examina o impacto da qualidade da governança corporativa na estrutura de capital. O desenho de pesquisa quantitativa é utilizado para este estudo empírico. Amostra consiste em dados em painel das empresas do setor não financeiro listadas na bolsa de valores do Paquistão em diferentes períodos. Os dados das variáveis de interesse são coletados dos relatórios anuais publicados pelas empresas e publicações do banco estatal do Paquistão. As empresas são selecionadas por meio de uma amostra representativa de todo o setor não financeiro.

Os resultados revelam que o tamanho do conselho está negativamente e significativamente relacionado ao índice de endividamento no caso de empresas listadas na paquistanesa que operam no setor não financeiro. A relação negativa foi encontrada entre o retorno sobre o ativo (ROA) e a relação dívida / patrimônio líquido, o que sugere que as empresas paquistanesas obtêm retornos mais altos sobre os ativos e essas empresas dependem mais de financiamento interno, resultando em menor uso da dívida. A liquidez mostra uma forte associação negativa com a dívida ao patrimônio. Quanto ao tamanho da empresa, foi observada uma associação positiva e significativa com a dívida em relação ao capital próprio.

As conclusões do estudo sugerem que a governança corporativa é estatisticamente significativa e negativamente relacionada à estrutura de capital. Isso implica que empresas sólidas de governança corporativa buscam menor alavancagem para evitar riscos financeiros e diluição de poderes.

As descobertas do estudo ajudarão os gerentes da empresa a alcançar um nível ideal de estrutura de capital. Também ajuda as autoridades reguladoras a reduzir os custos e fornecer apoio institucional para tornar os mecanismos de governança corporativa mais eficazes.

PALAVRAS-CHAVE: estrutura de capital, endividamento, índice de endividamento, alavancagem, governança corporativa, Paquistão, setor não financeiro.

GENERAL INDEX

Figures Index.....xv

Tables Index.....xii

Abbreviations List.....xiii

CHAPTER 1. INTRODUCTION 1

CHAPTER 2. LITERATURE REVIEW 4

2.1 Trade -off theory.....4

2.2 Agency theory.....5

2.3 Free cash flows theory.....6

2.4 Pecking order theory.....7

2.5 Board size.....8

2.6 Board independent.....10

2.7 Managerial ownership.....11

2.8 Size of the firm.....12

2.9 CEO duality.....13

CHAPTER 3. METHODOLOGY.....16

3.1 First study.....16

3.1.1 Sample and data collection.....16

3.1.2 Variables and measurement.....16

3.1.3 Regression model.....17

3.2 Second study 18

3.2.1 Sample and data collection.....18

3.2.2 Variables and measurement.....18

3.2.3 Regression model.....19

3.3 Third study 20

3.3.1 Sample and data collection……20
3.3.2 Variables and measurement……20
3.3.3 Regression model……22
3.4 Forth study ……23
3.4.1 Sample and data collection……23
3.4.2 Variables and measurement……23
3.5 Fifth study ……24
3.5.1 Sample and data collection……24
3.5.2 Regression model……25

CHAPTER 4. RESULTS AND DISCUSSION……26
4.1 Findings of the first study……26
Descriptive statistics……26
Correlation analysis……28
Regression analysis……30
4.2 Findings of the second study……32
Descriptive statistics……32
Correlation analysis……58
Regression analysis……33
4.3 Findings of the third study……37
Descriptive statistics……37
Correlation analysis……39
Regression analysis……39
Model 1……39
Model 2……40
Model 3……41
4.4 Findings of the forth study……43
Descriptive statistics……43
Correlation analysis……45
4.5 Findings of the fifth study……45

Regression analysis……..45
Correlation analysis……..48

CHAPTER 5. CONCLUSION ……..51
5.1 Summary……51
5.2 Recommendations……52

BIBLIOGRAPHY……..53
APPENDICES……..58
Appendix 1……58
Appendix 2 ……59

TABLES INDEX

Table **3.**1 Variables used in the study (first study)……17

Table 3.2 Variables used in the study (second study)……18

Table 3.3 Variables used in the study (third study)……21

Table 3.4 Variables used in the study (forth study)……23

Table 3.5 List of countries having portfolio investment in Pakistan (forth study)……24

Table 4.1 Descriptive statistics (first study).....26

Table 4.2 Correlation analysis (first study)……28

Table 4.3 Regression analysis (first study) ……30

Table 4.4 Descriptive statistics (second study).....32

Table 4.5 Correlation analysis (second study)……58

Table 4.6 Regression analysis (second study).....33

Table 4.7 Regression analysis (second study).....34

Table 4.8 Descriptive statistics (third study).....37

Table 4.9 Correlation analysis (third study) ……39

Table 4.10 Regression analysis (third study).....39

Table 4.11 Regression analysis (third study)……40

Table 4.12 Regression analysis (third study) ……41

Table 4.13 Descriptive statistics (forth study)……43

Table 4.14 Correlation analysis (forth study) ……45

Table 4.15 Regression analysis (fifth study).....45

Table 4.16 Correlation analysis (fifth study) ……48

ABREVIATIONS LIST

CEO	Chief Executive Officer
LEV	Leverage
BZ	Board Size
NED	Non-Executive Director
INED	Independent Non-Executive Director
INSTSH	Institutional Shareholding
MANGSH	Managerial Shareholding
ROA	Return on Asset
SZ	Size of Firm
DUALITY	CEO/Chair duality
ε	Error term
$\boldsymbol{\beta}0$	Intercept of the equation
$\boldsymbol{\beta}1$	Marginal effect of variable on debt to equity ratio
TDR_{it}	Total Debt Ratio of firm i at time t
$LTDR_{it}$	Long Term Debt Ratio of the firm i at time t
BS_{it}	Board Size
OD_{it}	Outside Directors
OC_{it}	Ownership Concentration
$MOWN_{it}$	Managerial Ownership
CD_{it}	CEO Duality
$PROF_{it}$	Profitability
LIQ_{it}	Liquidity
AT_{it}	Asset Tangibility
$\boldsymbol{\beta}0$ to $\boldsymbol{\beta}10$	Coefficient of concerned explanatory variables
u_{it}	Error term
BSZ	Board Size
SZE	Size of Firm
CEO/Chairman	CEO/Chair Duality

μt	Error term
$\boldsymbol{\beta}$i	Marginal effect of on Leverage

FIGURES INDEX

Figure 2. 1 Conceptual Framework……14

CHAPTER 1. INTRODUCTION

The capital structure of a firm is a specific mixture of debt and equity that the firm uses to finance its operations (Abor, 2007). The literature in capital structure began with the seminal work by Modigliani and Miller (1958) on the irrelevance of capital structure. Since then, capital structure continues to be a topic of interest in financial economics and produced a large volume of research. Capital structure decision is the essential one since the profitability of an enterprise is directly affected by such decisions (Kajananthan, 2012). The decision is important as it maximizes returns and because of the impact it has on an organization's ability to deal with its competitive environment (Abor and Biekpe, 2005). The firms must decide the capital structure that will maintain sustainability and generate more wealth. According to Abor (2007), a firm can decide among many alternative capital structures. It can issue debt of a large or very less amount. It can arrange lease financing, use warrants, issue convertible bonds, sign forward contracts or trade bond swaps. In deciding a capital structure that maximizes the overall market value, firms do differ in the way they deal with the issue of optimizing capital structure requirements. Capital structure should be planned to keep in view, the interests of ordinary shareholders and the interests of other stakeholders such as employees, customers, creditors, society and government.

Corporate governance is a framework to build an environment of accountability, trust and transparency. Corporate governance refers to how companies ought to be run, directed and controlled (Abor, 2007). It is a philosophy and mechanism that entails processes and structure which facilitate the creation of shareholder value through management of the corporate affairs in such a way that ensures the protection of the individual and collective interest of all the stakeholders. Good governance practices may have a significant influence on the strategy decision of a company, e.g. external financing that are taken at board level (Arshad Hasan, Sfdar Ali Butt, 2009). Claessens et al. (2002) also maintain that better corporate frameworks benefit firms through greater access to financing, lower cost of capital, better performance and more favorable treatment of all stakeholders. The countries that have implemented sound corporate governance practices generally experienced a vigorous growth of corporate sector and grasp more ability in attracting capital to lubricate the economy (Sheikh and Wang,

2012). Moreover, sound governance boosts the performance of a company not only by establishing and maintaining a corporate culture but also by reducing the cost of capital.

Corporate governance is concerned with the ways by which suppliers of capital to firms assure themselves of getting returns on their investments (Shleifer and Vishny, 1997). Investors prefer to deal with companies with better governance practices (Mishra and Mohanty, 2014). In previous studies also, corporate governance has been found to influence firm's capital structure and performance (Friend and Lang, 1988; Berger et al., 1997).

The root cause of the corporate governance is the agency problem. Agency theory posits that capital structure is determined by agency cost, i.e, costs due to the conflict of interest. The literature in this area has been built on the early work by Jensen (1976). Corporate governance mitigates agency problems. Because leverage is related to agency costs and agency costs, in turn, are related to governance quality, the paper hypothesizes that capital structure is influenced by corporate governance quality (Ranjana Rijal and Surya Bahadur, 2010).

According to agency theory, conflicts between management and owners of the company arise agency problems. These agency problems then create conflicts between the interests of managers and those of shareholders. This is the common point where the two concepts ,i.e, corporate governance and capital structure meet (Muhammed Akram Naseem, Huanping Zhang, Fizzah Malik and Ramiz-Ur-Rehman, 2017) .In other word, when managers make financing decisions about the use of leverage in the capital structure of a firm, the element of corporate governance should also be brought under consideration (ROSC, 2005). Several researchers (Berger et al., 1997 and Wen et al., 2002) have focused their attention on the relationship between corporate governance and capital structure. For example, weak governance is more significantly leveraged and have poorer firm performance than strong governance firms (Jirapon et al., 2012). Strong corporate governance mechanisms can reduce agency costs. Managers tend to seek lower financial leverage when they confront with the good corporate governance on the board of directors (Wen et al., 2002).

The main purpose of this review is to examine empirically the effect of the quality of corporate governance on capital structure. This study is organized as follow: section 2 provides an overview of literature on corporate governance and capital structure, section 3 describes the methodology, section 4 covers the empirical results and discussion, and finally section 5 presents conclusion and recommendations.

CHAPTER 2. LITERATURE REVIEW

The main objective of this study is to produce a systematic review of the most relevant literature and therefore providing a theoretical background for subsequent research on the impact of corporate governance on capital structure.

A systematic literature review is a review of a clearly formulated question that uses systematic and explicit methods to identify, select, and critically appraise relevant research, and to collect and analyze data from the studies that are included in the review. Statistic methods (Meta-analysis) may or may not be used to analyze and summarize the results of the included studies (Cohran Collaboration, 2014). According to Rosso et al (2008) a systematic review must never provide answers, instead it should report as accurately as possible what is known and unknown about the question addressed in the review. The fact that an explicit methodology will be employed to conduct this review makes it possible to be critically evaluated.

A number of empirical studies have suggested that some aspects of capital structure like trade of theory, agency theory and pecking order theory (Mohammed Akram Naseem, Huanping Zhang and Fizzah Malik, 2017) and some corporate governance attributes including board size, managerial ownership, board independent (Mohammed Akram Naseem, Huanping Zhang and fizzah Malik, 2017 ; Saad, 2010; kajanthan, 2012; Sheikh and Wang, 2012) may help to better understand the link corporate governance and capital structure.

2.1 Trade-off theory

The trade-off theory states that capital structure is based on a trade –off between tax savings and distress costs of debt. Firms with safe, tangible assets and plenty of taxable income to shield should have high target debt ratios. The theory can explain why profitable companies within the industry have lower debt ratios (trade –off theory predicts the opposite as the profitable firms have a large scope for tax shield and therefore subsequently should have higher debt levels). Otherwise, the trade -off theory state that capital structure is determined by a trade-off between the benefits of debt and

the costs of debt. The benefits and the costs can be obtained in a variety of ways. The ´´tax bankruptcy trade-off´´ perspective is that firms balance the tax benefits of debt against the deadweight costs of bankruptcy. The agency perspective is that debt disciplines managers and mitigates agency problems of free cash flow since debt must be repaid to avoid bankruptcy (Jensen and Meckling, 1976; Jensen, 1986; Hart and Moore, 1994). The trade-off theory suggests that capital structure could either enhance or impede productive interactions among the stakeholders. Titman (1984) argues that firms making unique products will lose customers if they appear likely to fail. Maksimivic and Titman (1991) consider how leverage affects a firm´s incentive to offer a high-quality product. Jaggia and Thakor (1994) and Hart and Moore (1994) consider the importance of managerial investments in human capital. These perspectives differ from the tax bankruptcy trade-off in that the costs of debt are from disruption to normal business operations and thus do not depend on the arguable small direct costs of bankruptcy (Murray Z. Frank and Vidhan K.Goyal, 2007).

According to the static trade–off theory, a firm maximizes the wealth of its shareholders when its capital structure reaches the optimal level via a trade –off of tax benefits against financial distress costs of debt (Likai-Liao, Taruna Mukherjee and Wei wang, 2015), this theory was documented at the first by Modigliani Miller (1963), simultaneously with the introduction of taxes, bankruptcy and administration costs.

2.2 Agency theory

The notion of agency conflicts within a firm offers an important determinant of capital structure (Jensen and Meckling, 1976). The presence of significant agency problems usually distorts corporate policy choices and weakens corporate performance. According to this theory, separation of ownership and management creates agency problems due to conflict of interests.to resolve this problem, the concept of corporate governance evolved. Thus, firms with good corporate governance are less likely to be affected by agency issues (Muhammed Akram Naseem, Huanoing Zhang, Fizzah Malik and Ramiz–Ur-Rehman, 2017). However, studies on the adjustment speed of capital structure or corporate governance quality in capital structure choices Longley ignore the

overall impact of corporate governance quality on the adjustment speed of capital structure towards its targets (Ya-Kai chang, RobenK. Chou and Tai-Hsin Huang, 2015).

Kyereboah-Coleman (2007) interrogates the identification of an optimal capital structure and its explanatory variables. The author starts by asking what motivates the selection of a debt and equity mix. As a result, the agency theory is proposed and explained as when managers have the information regarding the prospects of the company, use that information for their own interests, which are different from those of shareholders. Subsequently, firms use more debt in their capital structure especially when management is pressurized by the shareholders to use funds efficiently so as to be able to pay out future cash flows (for example dividends) (Kyreboach-Coleman, 2007).

In summary, agency theory suggests that there are several ways in which debt can help mitigate agency conflicts between shareholders and managers. Holding constant the manager´s absolute investment in the firm, increase in the fraction of the firm financed by debt, increases the manager's share of the equity, thereby bringing the managers and shareholders interest into better alignment. Moreover, Jensen (1986) argued that since debt commits the firm to pay out cash, it reduces the amount of free cash flow available to managers to engage in excessive perquisite consumption. Corporate governance is put in place specifically to ensure that managers act in the best interest of shareholders.

2.3 Free cash flow theory

According to free cash flow theory of capital structure innovated by Jensen (1986), leverage itself can also act as monitoring mechanism and thereby reduces the agency problem hence increasing firm value, by reducing the agency costs of free cash flow. There are some consequences derived if a firm is employing higher leverage level. Managers of such firms will not be able to invest in non-profitable new projects, as doing so, the new projects might not be able to generate cash flows to the firm, hence managers might fail in paying the fixed amount of interest on the debt or the principal when it's due. It also might cause in the inability to generate profit in a certain financial year that may result in failing to pay dividends to firm shareholders.

Furthermore, in employing more leverage, managers are forced to distribute the cash flows, including future cash flows to the debt holders as they are bonded in doing so at a fixed amount and in a specified period. If managers fail in fulfilling this obligation, debt holders might take the firm into bankruptcy case. This risk may further motivate managers to decrease their consumption of perks and increase their efficiency (Grossman and Hart, 1982).

This statement has been supported by Jensen (1986) which states that from the agency view, the higher the degree of moral hazard, the higher the leverage of the firm should be as managers will have to pay for the fixed obligation resulting from the debt. Hence, it will reduce manager's perquisites. Extensive research suggests that debt can act as a self-enforcing governance mechanism; that is; issuing debt holds managers "feet to the fire" by forcing them to generate cash to meet interest and principle obligations (Gillan, 2006).

2.4 Pecking-order theory

The pecking order theory was first suggested by Donaldson in 1961 and was modified by Myers and Majluf in 1984. This theory assumes that because of asymmetries of information between insiders and outsiders, the company prefers to be financed first by internal resources, then by debt and finally by stockholder's equity.

Pecking order theory, state that capital structure is driven by firm´s desire to finance new investment, first internally, then with low-risk debt, and finally if all fails, with equity, therefore, the firms prefer internal financing to external financing (Myers and Majluf, 1984). This theory is applicable for large firms as well as small firms. Since the quality of small firms' financial statements vary, small firms usually have higher levels of asymmetric information. Even though investors may prefer audited financial statement, small firms may want to avoid these costs (Petit and Singer, 1985), therefore when issuing new capital, those costs are very high. As a result firms prefer first internal financing (retained earnings), then debt and they choose equity as a last resort (Petit and Singer, 1985).

According to Myers (2003), external financing covers only a small part of capital formation and that external equity represents a minor portion, with the bulk of external financing being debt. This conclusion has been challenged by Franc and Goyal (2003) showing that external finance is much more significant, and equity finance being a significant component.

Myers & Majluf (1984) contrasting the static trade-off theory, discusses the rationale of the pecking order model of corporate leverage, which was later supported by amongst others Chen (2004). The model is explained by what has been observed in companies, which is the tendency of not issuing stock (shares) and instead holding large cash reserves. Myers & Majluf (1984) conclude that this is unnecessarily holding financial slacks because of possible conflict of interest by managers as well as between old and new shareholders. Chen´s (2004) view is that only when forced by circumstances, do companies resort to external financing, using debt before equity.

Kyreboah-Coleman (2007) explains the pecking order theory to be suggesting that the profitability of a firm does influence its financing decisions. The study elaborates the contention that firms which have not predetermined their debt and equity mix prefer internal to external financing.

2.5 Board size

The board of directors is the highest body of a company that is responsible for managing the firm and its operations. The board size has been identified as the important determinant of corporate governance effectiveness in theoretical articles (Lipton and Lorsh, 1992; Jensen, 1993). An effective board of directors is crucial for the successful operations of a company. As important and strategic direction of a company depends upon the consensus of the board members, so board size is considered relevant in determination of financing mix of the company. Boards are important factor as they affect the reliability of annual reports (Anderson, Mansi and Reeb, 2004). Board size has an inverse relationship with the cost of debt as concluded by Anderson et al (2004) in their research and it leads to the finding that larger boards can more effectively monitor financial reporting which is considered one of the core responsibilities of boards.

The empirical evidence shows a different relationship between the board size and capital structure. Adam and Mehran (2003) concluded a large board in size can take better decisions and can monitor management in a better way than otherwise. Whereas, Lipton and Lorsh (1992) found that larger boards are waste of resources and smaller boards are more effective an efficient than larger boards. So the evidence regarding the association between board size and capital structure is diverse.

A negative significant relationship is observed between leverage and board size (Berger, Ofek, & Yermak, 1997). The CEOs with small board are being monitored closely and therefore are less entrenched and issue more debt. Hasan & Butt (2009) suggest a negative correlation between size of board and debt to equity ratio indicating larger board may exert pressure on managers to follow lower gearing levels and enhance firm performance.

According to Adams and Mehran (2003) a large board's size can examine the organization function more effectively and provide better management and monitoring of the organization due to the better skills and more expertise. Berger et al (1997) suggest that leverage is lower when the board of directors is larger. Is it can be assumed that larger boards translates into strong pressure from the corporate board to make managers pursue lower leverage to get good performance results, also Anderson et al (2004) document a larger board as he found that an additional member on the boards bring the benefit of lower cost of debt financing. Conversely, Abor (2007) and Bokpin & Acro (2009) conducted a study on Ghanaian firms and found that there is a significant positive relationship between the capital structure and the board size. Ganiyu and Abiodun (2012) in Nigeria find a positive relationship suggesting that large boards are likely to practice effective monitoring due to the sufficient numbers of directors that can constitute different regular bodies and that apply high debt level to increase the firm value, furthermore, large boards raise conflicts that may lead to difficulty in reaching a consensus in decision making which may weaken corporate governance resulting in higher leverage.

Based on the above discussion, the following hypothesis was formulated:

H1: Board size has a significant negative impact on "Debt to Equity ratio".

2.6 Board independent

Independent board of director means that directors are free to make their judgment and these directors must protect shareholders objectives (Fama and Jensen, 1983 and Agrawal & Knoeber, 1996). According to Sheikh and Wang (2012), a high degree of board independence enables non-executive directors to monitor the actions of the management more closely. Empirical evidence in relation to board composition and leverage yields mixed results. Wen et al. (2012) find a significantly negative link between several non-executive directors on the board and leverage. Outside directors have a propensity to monitor managers more actively, causing lower leverage used by the firm due to the effective control. On the other hand Wen (2002) also provides evidence about the existence of a significant and negative relationship between gearing level and representation of non-executive directors on the board. He suggested that non-executive directors monitor the managers efficiently and effectively, so managers are forced to seek lower gearing levels for achieving superior results. According to Bokpin and Arko (2009), there is a positive but statistically insignificant alliance between board independence and the debt ratio. Pfeffer and Salancick (1978) documented that firms which have outside directors are more competent and are better able to handle uncertainties that may occur in the external environment. Moreover, they can make use of all those resources which may enhance the performance of the firm and allow them to raise finances.

The presence of non-executive directors could lead to better management decisions and help firms in attracting better resources given that external board members may have good knowledge or useful information on financing facilities. According to Berger et al (1997), firms with higher percentage of external directors utilize more debt as compared to equity. Kajantahn (2012) suggests a positive relationship between proportion of non-executive directors and firm´s capital structure. Sheikh and Wang (2012) indicate that outside director is positively related with both the measures of capital structure (i.e the total debt ratio and the long- term debt ratio). However the positive link indicates that boards with more independent directors could take on more debt due to effective monitoring. According to Coleman and Biekpe (2006), the independence of the board through the appointment of more outside directors is related to long-term debt and total leverage.

Based on the above discussion, my second hypothesis is as follows:

H2: board independence has an insignificant positive relationship with "Debt to Equity ratio".

2.7 Managerial ownership

Managerial ownership includes the shares owned by CEO, directors, their spouses and children. CEO and managing director is the same position held by the person heading all the management in a firm. If managers own shares in a company, they are less likely to consume additional perks or investing the resources of organization below cost of capital. Thus, agency problems mitigate through managerial ownership because of interests of both the parties (Jensen & Meckling, 1976). According to Berger et al. (2012), the main objective of managers is to maximize the wealth of shareholders and achieve the highest performance of the company using fewer debt to prevent financial distress. Therefore there is negative association between management ownership and management.

Wiwattana and Kentag (1999) in his study found no significant relationship between the CEO and managerial holding and debt ratio, conversely, Fosberg (2004) suggested a negative significant relationship between CEO holdings and leverage employed in capital structure. He argued that CEO will prefer his personal incentives over the interests of shareholders. CEO has the executive responsibility to manage the firm´s business, while the chairman is responsible for handling the affairs of the board (Sheikh and Wang, 2012). Also bathala et al (1994) found a significant negative association between firm debt and managerial ownership. They stated for controlling the agency costs, firms use to trade –off debt and shares owned by managers. A study of Chinese listed firms has reported an inverse relationship between managerial holdings and debt ratio (Huang & Song, 2006). Bokpin and Arco (2009) revealed a significant positive impact of managerial holdings on debt equity choice of Ghanaian listed firms. Kyereboah-Colman and Biekpe (2006) find a negative and significant connection between CEO duality and the short-term leverage and total leverage. Whereas Abro (2007) and Berger et al (1997) found a significant and positive link between CEO

duality and leverage. King and Santor (2008) found a positive relationship between family ownership and leverage and suggested that the family who owned businesses tend to issue debt to finance projects in order to avoid the takeovers.

Following the above discussion, the hypothesis bellow was framed:

H3: Managerial ownership has a significant negative relationship with "Debt to Equity ratio".

2.8 Size of the firm

The size of the firm is assumed to have a positive relationship with leverage. The reason is that bigger firms tend to have fewer volatile cash flows and that they take on more debt to maximize the benefits from a tax shield. Large firms generally have close links with their lenders and finds it easy to arrange debt on favorable terms. The larger firms are also believed to be in a better position to diversify their investment projects and hence limit their risks due to cyclical fluctuations. Larger firms can therefore be considered to have a lower financial distress risk. Titman and Wessels (1988) argue that direct bankruptcy costs are fixed, and they constitute a smaller portion of firm value as a firm increases in size. Smaller firms on the other hand face a different reality in procuring long-term debt. This is not mainly due to the information asymmetry, but to the strong negative correlation between firm size and the probability of bankruptcy (Berryman, 1982 and Hall et.al, 2004). According to Fama and Jensen (1983) the transactions costs for large firms are reduced since they struggle with less asymmetric information problems. Consequently larger firms tend to have more equity comparing with smaller ones. A possible explanation is that basing on (Ferri and Jones, 1979) findings, smaller firms often find it relatively more costly to disperse asymmetric information and therefore are offered less or significantly more expensive capital from financiers and lenders.

Based on previous evidence, the following hypothesis was formulated:

H4: Size of the firm has a significant positive relationship with "Debt to Equity ratio".

2.9 CEO Duality

CEO duality occurs when a firm´s CEO serves as chairman as well in the board of directors. Theoretically, agency conflicts can be reduced, if we separate the duties of decision control and decision management. Brickely et al. (1997) argue that separating the titles will reduce agency costs in corporations and improve performance. Fama and Jensen (1983) argue that the role of CEO and chairman should be separate, as chairman is the chief decision control authority and CEO has the responsibility to manage business of the firm. But duality can increase power and improve overall judgement. CEO duality provides boarder power, authority and control to the CEO (Boyd, 1995). Brickely et al. (1997) argued that duality and separation both have benefits and cost so there is no significant single relationship between duality and capital structure because duality will be good and beneficial for some organization and it is not valuable for other. Also this insignificant association was observed by Hasan & Butt (2009) for the listed firms in Pakistan. It is suggested that in Pakistan non-executive directors are not independent in true sense. However correlation analysis suggests that CEO/Chair duality and manager ownership are negatively correlated with profitability.

Sheikh and Wang (2012) find CEO duality is also insignificant and negatively linked to with both the measures of capital structure (i,e, short-term leverage and long-term leverage). The possible reason is that the presence of CEO/Chair duality signals the absence of separation of decision management and decision control and it ultimately leads to agency problems.

This insignificance alliance observed by researchers suggests that the separation of two functions does not really affect the capital structure choice by the firm (*Sathe* Madhuvanti and Gawade S.U, 2014).

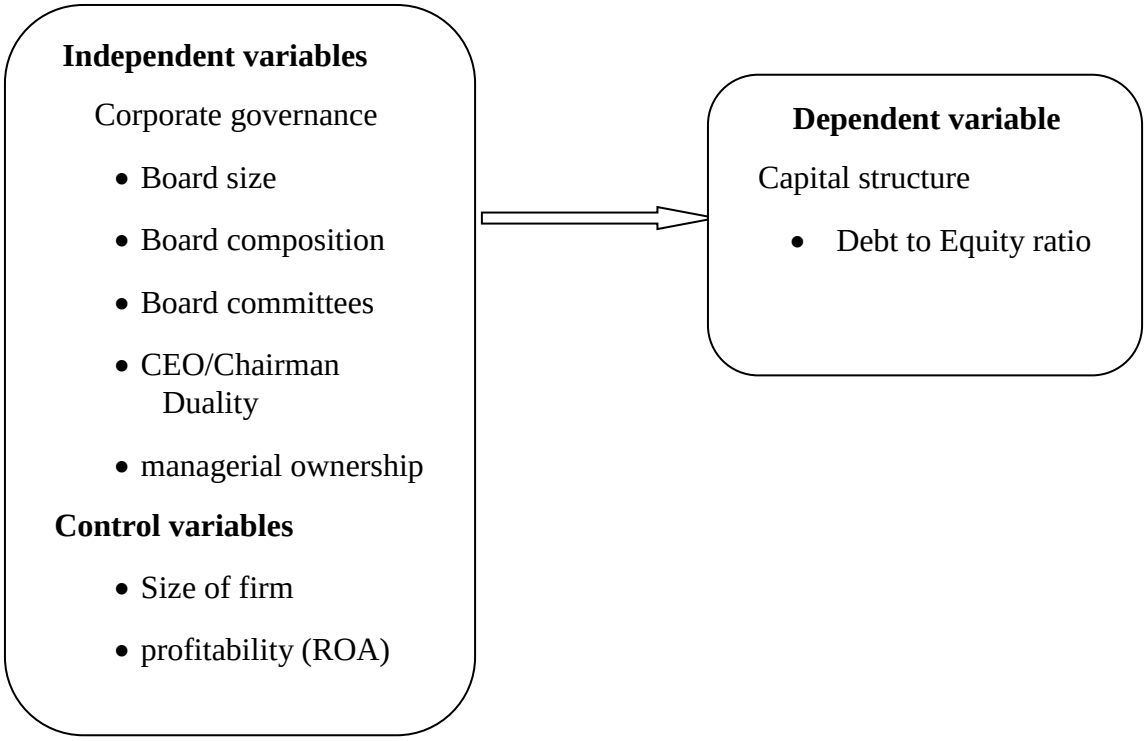
Very few authors support the positive and significant relationship between CEO duality and capital structure. Fosberg (2004) finds that firms with separate chairman and CEO employ the optimal amount of debt in their capital structures. He discovers that firms with separate CEO and chairman generally have higher financial leverage. However, it is worth mentioning that this relationship is statistically insignificant. Abor (2007) also

observed a significant and positive association between dual leadership and capital structure. Kyreboah Coleman and Biekpe (2006) find a negative and significant connection between CEO duality and the short-term leverage and total leverage.

Based on above arguments, the following hypothesis was formulated:

H5: CEO duality has an insignificant negative relationship with "Debt to Equity ratio".

Figure 2.1- Conceptual Framework



Source: Bulathsinhalage S & Pathirawasam Ch. / Journal of Competitiveness, Vol. 9, Issue 2, pp. 19-33, June 2017.

Research hypotheses

The study will seek to test empirically the following hypotheses:

H1: Board size has a significant negative impact on Debt to equity ratio.

H2: Board independence has an insignificant positive relationship with Debt to equity ratio.

H3: Managerial ownership has a significant negative relationship with Debt to equity ratio.

H4: Size of the firm has a significant positive relationship with Debt to equity ratio.

H5: CEO duality has an insignificant negative relationship with Debt to equity ratio.

CHAPTER 3. METHODOLOGY

Databases

The following studies conducted in this research are mostly taken from B-ON and the Social Science Research Network (SSRN) databases because of the amount of informations that these two databases contain. The Web of Science (apps.webofknowledge.com) database was also used but the first two databases sources were relevant especially SSRN which is considered one of the important source of working papers on the field of economics, finance and accounting.

3.1 First study

3.1.1 Sample and data collection

This study investigates the relationship between corporate governance and capital structure of firms listed in Pakistan stock exchange during the period of 2002 to 2005. The number of non-financial companies have been examined in this study is 59 which are randomly selected for this investigation.

3.1.2 Variables and measurement

The variables used in this study to measure the link corporate governance and capital structure are: dependent variable which is capital structure- leverage, and independents variables considered as measures of corporate governance like board size, board composition,CEO/Chair duality, managerial shareholders and institutional shareholding. As for control variables employed in this study as measures of capital structure are firm size and profitability. The definition of these variables is listed in the following table:

Table 3.1- Variables used in the study

Variables	Definition and measurement
Board Size (BZ)	The board of directors is the highest body of a company that is responsible for managing the firm and its operation. Is measured as logarithm of number of board members.
Size of Firm (SZ)	Is taken as total assets. Is measured as logarithm of total assets.
CEO/Chair Duality (DUALITY)	CEO/Chair duality is an important feature of modern corporate governance. It indicates the corporate management where the CEO also serves as chairman of the board.
Institutional shareholding (INSTSH)	Institutional shareholding is measured as percentage of shares held by institutions as disclosed in annual financial reports.
Profitability (ROA)	ROA (net income divided by total assets). Is used as measure of profitability.
Non-executive directors (NED)	Non-executive directors are cornerstone of modern corporate governance.
Managerial shareholding (MANGSH)	Managerial shareholding is measured as percentage of shares held by members of board disclosed in annual financial reports.

Source: Arshad H. et al. / international journal of business and management Vol. 4, No. 2, 2009

3.1.3 Regression model

This study employs multivariate regression analysis in a panel data framework to measure the dependence of capital structure on corporate governance variables. The model is presented as follow:

$$LEV_{it} = \beta 0 + \beta 1(LogBZ)_{it} + \beta 2(\%NED)_{it} + \beta 3(INSTSHR)_{it} + \beta 4(MANGSHR)_{it} + \beta 5(ROA)_{it} + \beta 6(SZ)_{it} + \beta 7(DUALITY)_{it} + \varepsilon_{it}$$

3.2 Second study

3.2.1 Sample and data collection

This study investigates the significant corporate governance attributes that may affect the capital structure of non-financial firms listed on Pakistan stock exchange (KSE). The sample unit of this study comprise 155 firms of 775 observations over the period 2004- 2008. The data were obtained from the yearly annual reports of companies included in the sample.

3.2.2 Variables and measurement

In this study it has used two measures of capital structure as dependent variables, i.e, the total debt ratio and the long debt ratio. The explanatory variables include board size, outside directors, ownership concentration, managerial ownership, director remuneration, and CEO duality. The control variables include profitability, size, liquidity, and asset tangibility.

Definitions of variables are presented in the table below:

Table 3.2- Variables used in the study

Variables	Definition
Dependent variables	
Total debt ratio (TDR_{it})	Ratio of total debt to total assets. Total debt is the sum of short-term debt and long-term debt.
Long-term debt ratio ($LTDR_{it}$)	Ratio of long-term to total assets
Explanatory variables	
Board size (BS_{it})	Logarithm of number of board members.
Outside directors (OD_{it})	Ratio of outside directors to total board members
Ownership concentration (OC_{it})	Ratio of shares held by five largest shareholders to total outstanding shares.

Table 3.2- Variables used in the study (cont.)

Managerial ownership (MOWN$_{it}$)	Ratio of shares held by CEOs, directors, and their immediate family members to total outstanding shares.
Director remuneration (DREM$_{it}$)	Logarithm of director remuneration
CEO duality (CD$_{it}$)	A dummy variable, 1 if CEO is the chairman, 0 otherwise
Control variables	
Profitability (PROF$_{it}$)	Ratio net profit after taxes to total assets
Size (SIZE$_{it}$)	Natural log of total assets
Liquidity (LIQ$_{it}$)	Ratio of current assets to current liabilities
Asset tangibility (AT$_{it}$)	Ratio of net fixed assets to total assets

Source: Nadeen A.and Zongjun W. / The international journal of business in society, Vol. 12 Issue: 5, pp.629-641, 2012

3.2.3 Regression model

In order to gauge the effect of corporate governance attributes on capital structure the study employed panel data methodology. The basic regression model is as follow:

$$Y_{it} = \alpha + \beta X_{it} + u_{it}$$

$$i= 1 \ldots\ldots 155,\ t= 1\ldots\ldots 5$$

Where i denotes the cross-section dimension and t indicates the time dimension, Y_{it} is the firm capital structure at time t, X_{it} is a 1* k vector of observation on k explanatory variables for the firm in the t period. $\boldsymbol{\beta}$ is a k* 1 vector of parameters, u_{it} is a disturbance term and is defined as: $u_{it}= \mu_i + v_{it}$

Where u_i denotes the unobservable individual effect and v_{it} denotes the remainder disturbance.

The method pooled least squares (OLS) is used to estimate the coefficients.

Model (1):

$$TDR_{it} = \beta 0 + \beta 1(BS)_{it} + \beta 2(OD)_{it} + \beta 3(OC)_{It} + \beta 4\,(MOWN)_{it} + \beta 5(DREM)_{it} + \beta 6(CD)_{it} + \beta 7(PROF)_{it} + \beta 8(SIZE)_{it} + \beta 9(LIQ)_{it} + \beta 10(AT)_{it} + uit \quad \text{...............(1)}$$

Model (2):

$$LTDR_{it} = \beta 0 + \beta 1(BS)_{it} + \beta 2(OD)_{it} + \beta 3(OC)_{it} + \beta 4\,(MOWN)_{it} + \beta 5(DREM)_{it} + \beta 6(CD)_{it} + \beta 7(PROF)_{it} + \beta 8(SIZE)_{it} + \beta 9(LIQ)_{it} + \beta 10(AT)_{it} + uit \quad \text{...............(2)}$$

3.3 Third study

3.3.1 Sample and data collection

In order to more understanding the relationship between corporate governance and capital structure, another study is provided to investigate the multidimensional aspects of corporate governance that may affect the capital structure of manufacturing firms listed on the Pakistan stock exchange (KSE). The sample unit of this study comprise 67 firms of KSE-100, during the Period from 2007 to 2012. Data are gathered from the financial reports of these non-financial firms listed in Pakistan stock exchange.

3.3.2 Variables and measurement

Two measures of capital structure are used in this study as dependent variable, i.e, the total debt ratio and the long- term debt ratio (Sheikh and Wang, 2012). The independent variables include board composition, CEO duality, director shareholding, CEO tenure, audit committee, meeting of audit committee, expert in audit committee, big four auditors, remuneration committee and nomination committee. Corporate governance

index (CGI) has been developed by using binary coding (Sawicki, 2009). A total score for each firm is calculated for each year. The CGI ranges from 0 to 9. With a higher score indicating better governance. Firm´s profitability, size and liquidity are considered as control variables. Definitions of these variables are listed in table below:

Table 3.3 - Variables used in the study

Variables	Definition
Dependent variables	
Total Debt ratio (TDRit)	Ratio of total debt to total assets of firm
Long-term debt ratio (LTDRit)	Ratio of long-term to total assets
Independent variables	
Board of directors (BDit)	Board independence, as measured by the number of independent directors divided by the total number of directors,
	Chairman and CEO separation
	Largest directors' shareholders (as measured using direct interest and deemed interest divided by total issued shares) below 5% of issued capital.
Audit (ADit)	Existence of an audit committee
	disclosure of frequency of audit committee meeting
	Expertise of audit committee
	Engagement of big four auditors
Board committee (BCit)	Existence of a remuneration committee
	Existence of a nomination commitee

Table 3.3 - Variables used in the study (cont.)

Variables	Definition
Control variables	
Profitable (PROF$_{it}$)	Ratio of profit after tax to total assets
Size (SIZE$_{it}$)	Size of the log of total assets for firm i in time t
Liquidity (LIQ$_{it}$)	Ratio of current assets to current liabilities

Source: Aamer S. et al. / the IUP journal of corporate governance. Vol. XIV, No. 2, 2015

3.3.3 Regression model

Multiple regression analysis is used in estimating the relationship between the corporate governance characteristics and capital structure. The basic regression model is as follows:

$$Y_{it} = \alpha_i + \beta X_{it} + \varepsilon_{it}$$

Where t indicates the time series dimension, and Y_{it} represents the dependent variable in the model, which is the firm's capital structure at time t. X_{it} indicates the set of independent variables in the model, and α_i is taken to be constant overtime t and specific to the individual cross-sectional unit i. The method pooled ordinary least squares (OLS) is used to estimate the coefficients. The regression equations that were estimated in order to investigate the effects of corporate governance practices on capital structure take the following form:

Model 1:

$$TDR_{it} = \beta 0 + \beta 1 CGI_{it} + \varepsilon_{it}$$

$$LTDR_{it} = \beta 0 + \beta 1 CGI_{it} + \varepsilon_{it} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (1)$$

Model 2:

$$TDR_{it} = \beta 0 + \beta 1 BD_{it} + \beta 2 AD_{it} + \beta 3 BC_{it} + \varepsilon_{it}$$

$$LTDR_{it} = \beta 0 + \beta 1 BD_{it} + \beta 2 AD_{it} + \beta 3 BC_{it} + \varepsilon_{it} \text{ ..... (2)}$$

Model 3:

$$TDR_{it} = \beta 0 + \beta 1 CGI_{it} + \beta 2 PROF_{it} + \beta 3 SIZE_{it} + \beta 4 LIQ_{it} + \varepsilon_{it}$$

$$LTDR_{it} = \beta 0 + \beta 1 CGI_{it} + \beta 2 PROF_{it} + \beta 3 SIZE_{it} + \beta 4 LIQ_{it} + \varepsilon_{it} \text{ ..... (3)}$$

3.4 Forth study

3.4.1 Sample and data collection

To gauge the impact of corporate governance on capital structure, the initial sample consisted of Pakistani non- financial companies listed in Pakistan stock exchange (PSE) as reference. Data is collected from companies' annual reports, state bank of Pakistan publications. Selected companies are 40 and each selected company has observation (200) from 2009-2013. Companies are divided in twelve different sectors and 10% of the companies from each sector are selected for this study.

3.4.2 Variables and measurement

The following table presents the variables used in this study, their definitions and measurement.

Table 3.4- Variables used in the study

Variables	Definition & way of measurement
Debt to equity ratio (DR)	Used as representative of capital structure, which is defined as the ratio of total assets.
Board size (BS)	Used as explanatory variable and defined as total number of executive and non-executive board members.

Table 3.4- Variables used in the study (cont.)

Variables	Definition & way of measurement
Managerial ownership (MONN)	Defined and obtained as ratio of shares held by chief executive officer (CEO), directors, and their family members to total holdings.
Firm size (FS)	Used as one of the control variables and the indicator of firm size is taken as total assets.
Return on assets (ROA)	Defined as the ratio of profit before taxes to total assets and used as internal variable in this study.
Liquidity (LIQ)	Obtained as the ratio of current assets to current liabilities and LIQ serve as a control variable.

Source: state bank of Pakistan's publications / companies' annual reports (Muhammad A.N et al. / Journal of Developing Areas, Vol.3, No.1.Winter 2017)

3.5 Fifth study

3.5.1 Sample and data collection

According to state Bank of Pakistan (SBP) following are the countries having foreign portfolio investment (FPI) in Pakistan. In order to test the impact of corporate governance on capital structure 05 non-financial companies from developed countries and 05 non-financial companies from developing countries listed in stock exchange are considered as samples in the period of (2010-2016).

Table 3.5- List of countries having portfolio investment in Pakistan

Developed countries	Developing countries
U.K	China
Norway	Hong Kong
Canada	Qatar
USA	Korea(south)

Table 3.5- List of countries having portfolio investment in Pakistan (cont.)

Developed countries	Developing countries
Australia	Kuwait
Japan	UAE
France	Saudi Arabia
Germany	India
Netherland	Pakistan

Source: State Bank of Pakistan (2016) (Tariq R. et al. / Journal of Insurance and Financial Management, Vol. 3, Issue 5 (2018) 18-28

3.5.2 Regression model

Econometric model is used to test the impact of corporate governance on capital structure by referring to pooled regression data in the following model.

$$LEVGit = \boldsymbol{\beta}0 + \boldsymbol{\beta}1(\text{Log BSZ})it + \boldsymbol{\beta}2(\%\text{NED´s})it + \boldsymbol{\beta}3(\text{INSTSHR})it + \boldsymbol{\beta}4(\text{MANGSHR})it + \boldsymbol{\beta}5(\text{ROA})it + \boldsymbol{\beta}6(\text{SZE})it + \boldsymbol{\beta}7(\text{CEO/Chairman})it + \mu t$$

CHAPTER 4. RESULTS AND DISCUSSION

4.1 Findings of the first study

Descriptive statistics

Table 4.1- Descriptive statistics

Variable	Observation	Minimum	Maximum	Mean	Median	Std.Dev
LEV	177	0.05	6.52	1.48	1.17	1.14
BZ	177	7.00	19.00	8.46	8.00	2.12
%NED	177	0.00	1.00	0.48	0.57	0.27
Inst.Hold	177	0.00	0.56	0.15	0.12	0.12
MANGSH	177	0.00	0.86	0.21	0.09	0.24
ROA	177	-0.16	0.30	0.08	0.06	0.07
Log (total asset)	177	1.96	4.80	3.35	3.47	0.64

Source: Arshad H. et al. / international journal of business and management Vol. 4, No. 2, 2009

The percentages provided in Table 4.1 present a mixed results. The mean debt ratio which is 1.48 showed clearly that the sample firms have higher proportion of debt in relation to equity. One may conclude that the Pakistani non-financial listed companies tend to have high degree of reliance on short-term bank debt rather than equity finance or long-term debt. This result is in line with Booth et al. (2001) who suggested that Pakistani firms tend to use more debt in their capital structure compared to firms in Canada, UK, USA, Jordan, Malaysia, an other countries and have less debt ratio than firms in France, Germany, Italy, Japan and South Korea. The literature does argue that the firms in developing countries generally take more debt that those in developed economies.

As for the average size of board in Pakistani listed companies is almost 8.5 with largest board of 19 and minimum of size 7 which is larger enough according to Jensen theory (1983) which states that, ideally a board should have seven to eight members for effective functioning. It is important to have the right number of members on the board

because the size of the board can determine the quality of managerial monitoring and control (Lakshan & Wijekoon, 2012).

Results reveal that Non-executive directors (NED´s) represent on average 48% of boards indicating a good representation of independent directors, but they are not independent in true sense because of business that is owned by families.

ROA shows a company´s efficiency in making profit from its assets (Akbari, 2006). The average rate of return on assets is 8% showing that the firm´s performance is low in terms of utilization of its assets, the value gives the evidence about why Pakistani listed firms rely more on debt.

The table 4.1 shows that the average size of Pakistani selected firms is 3.35. According to Williamson (1967), it is expected that large companies due to their reputation and having more human resources and desirable management have better performance. Also bigger companies tend to be more diversified which reduces risks and hence, the chances of bankruptcy is less compared with small ones. The result showed in table appeared lower compared with, for example, the mean size of Jordanian listed firms which is 16.39 in years 2001-2011(Ramadan, 2012).

Managerial ownership is 9% means that only 9 percent of shares owned by company insiders, which is low. This may because most companies in Pakistan are family owned, also, because managerial ownership is not popular in Pakistani selected companies which cannot lead to an alignment of interests between managers and shareholders.

Institutional shareholders represent 12%, which is, also a lower value.

Correlation analysis

Table 4.2- Correlation analysis

variables	leverage	Log Board size	%NED's	Inst. Hold	Managerial holding	ROA	Log (total asset)	Duality
leverage	1.00							
Log Board size	-0.07	1.00						
%NED's	0.04	0.10	1.00					
Inst.Hold	0.15	0.09	-0.28	1.00				
Manag.Hol	-0.19	-0.34	-0.25	-0.24	1.00			
ROA	-0.25	0.24	0.00	-0.05	-0.23	1.00		
Log(total asset)size	0.14	0.40	0.02	0.13	-0.46	0.34	1.00	
Duality	-0.07	0.10	0.18	-0.10	0.03	-0.03	-0.09	1.00

Source: Arshad H. et al. / international journal of business and management Vol. 4, No. 2, 2009

The table 4.2 above shows that profitability has a negative effect on leverage, which confirms the predictions of the pecking order theory that states firms will favor retained earnings over external finance. This finding means that Pakistani firms prefer to use the internal funds at the first resort to finance their projects then comes debt.

Correlation analysis provides evidence about the existence of positive correlation between size of the firm and leverage. One may conclude that the larger are the firms the more lenders feel confident and secure to extend more loans to the companies because of the collaterals that these firms have. In addition, this positive association might be explained that most banks in Pakistan are conservative in terms of lending policies. They are more focusing on firm collaterals.

Board size appears negatively correlated with debt to equity ratio. According to Berger (1996), this negative relationship indicates that larger boards normally favor low

gearing level and more focus on the firm performance. Otherwise, larger boards may exert pressure on managers to follow lower gearing level.

Correlation analysis indicates that managerial holding is negatively correlated with leverage. The possible reason is that as manager's shareholding in a company increase, they tend to bring down the size of the firm´s debt to reduce the risk and costs of bankruptcy. In case of Pakistani listed firms management-controlled companies are generally those whose majority equity is held by family.

Institutional shareholding is found positively correlated with leverage, May due to an efficient monitoring, and reduction of agency cost and managerial opportunism (Safdar A. Butt and Arshad Hasan, 2009).

CEO duality is negatively correlated with leverage, which implies that when CEO serves also as chairman in the board he tends to assure a rigorous monitoring and consequently adopting lower level of leverage for achieving superior results and at the same time preventing pressure and risk associated with large amount of debt. Coleman and Biekpe (2006) pointed out this negative connection by arguing that when CEO and chairman are same, agency cost increases due to which outside lenders are discouraged to lend in such enterprises.

Non-executive directors are positively correlated with debt ratio. This result is in line with several researchers' findings such as Berger et al. (1997) who suggested that those CEOs that are more actively controlled and monitoring by more outside directors, causing managers to employ more debts and raise the firm leverage. In addition, Sheikh and Wang (2012) confirmed that firms with a large portion of non-executive members seem to have favorable and easier access to loans and therefore applied a high level of debt.

Regression analysis

Table 4.3- Regression analysis

Variables	Coefficients	t-statistics	P-value
Intercept	2.44	2.52	0.01
Log Board Size	-1.85	-1.98	0.05
% NED'S	0.17	0.50	0.62
Inst. Hold	0.75	1.03	0.31
Managerial Holding	-0.90	-2.12	0.04
ROA	-4.95	-4.14	0.00
Log (total asset)	0.35	2.33	0.02
Duality	-0.11	-0.62	0.54

Level of significance 5%

Source: Arshad H. et al. / international journal of business and management Vol. 4, No. 2, 2009

$$LEVG_{it} = 2.44 - 1.85(\text{Log BSZ})_{it} + 0.17(\%\text{NED's})_{it} + 0.75(\%\text{INSTSHR})_{it} - 0.90(\text{MANGSHR})_{it} - 4.95(\text{ROA})_{it} + 0.35(\text{SZE})_{it} - 0.11(\text{DUALITY})_{it} + \varepsilon t$$

The regression analysis shows that with 1% increase in profitability, decreases leverage by 4.95% so there is a negative and significant association between profitability and leverage. According to Fama and French (2001), this result supports the pecking order theory where firms with high investment opportunities seem to use less debts to finance their investments projects, otherwise, firms use internally generated funds (retained earnings) as first resort rather than externally funds.

The size of the firm is positively and significantly related to debt to equity ratio. In effect, a unitary increase in size leads firms increase their debt financing by 0.35, which means that large firms have an advantage over the small firms in obtaining long-term as well as short-term bank loans as they have the economies of scales, such as the

opportunity for diversification and the ability to disclose more information (Fama and Jensen, 1983; Due and Dai, 2005).

A negative and significant relationship is provided by regression analysis between board size and debt to equity ratio. This result is consistent with several researcher's findings such as Berger (1997) and Abor (2007) who argue that larger boards prefer low debt levels. Larger boards may exert more pressure on managers to pursue lower debt and consequently employing more equity in order to improve firm´s value and performance.

Managerial ownership affects negatively and significantly debt to equity ratio, with 1% increase in managerial shareholding decreases leverage by 0.9%. This finding is consistent with Friend, Irwin and Lang (1988) who argue that in the absence of any external significant shareholding the propensity to have lower debt to equity ratio will persist and will result in higher non-diversifiable risk of debt management. A possible reason is that this negative association refers to the fact that high gearing level increases the probability of default and managerial shareholders interest in long term viability, so they favor the low gearing level.

Regression analysis provides evidence that the existence of NED on the board has no significant impact on leverage. Therefore, results may reflect the nature of the environment in which Pakistani firms operate where family owned business and NEDs are generally representatives of financial institution. In order to have a significant influence, NEDs should be independents.

CEO duality is negatively related to debt. According to stewardship theorists the dual role of CEO may enhance a firm´s performance because there is one clear leadership and such a structure eradicates ambiguity regarding responsibilities. Which may lead to use a lower level of gearing in order to prevent risks associated with the employment of higher debt and keep the firm performed. However, the relation is statistically insignificant, may because of nature of Pakistani firms that are mostly family owned.

Institutional shareholding appeared positively and insignificantly correlated to leverage the supporters of this finding like Abdoli et al. (2012) indicate that this positive

correlation is because of easiest access of institutional shares to different sources of financing such loans or bonds.

4.2 Findings of the second study

Descriptive Statistics

Table 4.4 - Descriptive statistics

Variable	Mean	Std.Dev	Minimum	Maximum
TDRit	0.59624	0.19151	0.04541	0.99394
LTDRit	0.22231	0.16743	0.00000	0.87651
BSit	0.89424	0.06900	0.84509	1.14612
ODit	0.06837	0.10364	0.00000	0.60000
OCit	0.58362	0.18160	0.06200	0.97342
MOWNit	0.29658	0.24681	5.35e-09	0.96595
DREMit	6.61306	0.54402	3.99246	7.90469
CDit	0.24903	0.43273	0.00000	1.00000
PROFit	0.06600	0.10699	-0.31727	0.79671
SIZEit	21.4830	1.38317	17.91891	25.5683
LIQit	1.41727	1.06995	0.126257	11.7963
ATit	0.54661	0.19533	0.026127	0.95639

Source: Nadeen A.and Zongjun W. / The international journal of business in society, Vol. 12 Issue: 5, pp.629-641, 2012

The table 4.4 presents the descriptive statistics of both, dependent and explanatory variables. As can be seen, the average total debt ratio and long-term debt ratio of the selected firms is respectively 59.62 percent and 22.23 percent. The average total debt ratio shows that more than half of Pakistani firms tend to rely on debt in their capital structure which is consistent with the findings of previous study.

As for the mean value of long-term debt ratio, it indicates that Pakistani firms tend to have less long-term debt ratio such as firms in developing countries. This result is

consistent with the findings of Demirguc-Kunt and Maksimovic (1999) who suggested that in general firms in developing countries hold lower amount of long-term debt.

The average value of outside directors is almost 7 percent which shows a lower representation of independent directors in Pakistani firms, according to Berger et al. (1997) this is very low comparing to largest public corporations (for about 53.90 percent).

Also the descriptive statistics table shows that 25 percent of the firms has a leadership style (CEO also serves as the chairman of the board).

The minimum value of board size is 85 percent, that a larger size on board may assure a good monitoring management therefore put pressure on managers to follow their interests, eventually pursuing lower debt ratio.

Correlation analysis

The table 4.5 (Appendix 1) presents the pair-wise correlation matrix for all variables used in the model. The correlation matrix does not suggest any serious multicollinearity problems.

Regression analysis

Table 4.6- Regression analysis

Model 1			
Variable	**Coefficient**	**Std.Error**	**Probability**
Total debt ratio (TDRit) as Dependent variable			
Constant	0.857060	0.092100	0.000
BSit	0.193256	0.072663	0.008
ODit	0.110904	0.044569	0.013
OCit	0.054968	0.025892	0.034
MOWNit	-0.027881	0.020906	0.183

Table 4.6- Regression analysis (cont.)

Model 1			
Variable	**Coefficient**	**Std.Error**	**Probability**
Total debt ratio (TDRit) as Dependent variable			
DREMit	-0.065178	0.009992	0.000
CDit	-0.004538	0.010879	0.677
PROFit	-0.584529	0.051772	0.000
SIZEit	0.011384	0.004118	0.006
LIQit	-0.100180	0.004957	0.000
ATit	-0.177427	0.025982	0.000

Source: Nadeen A.and Zongjun W. / The international journal of business in society, Vol. 12 Issue: 5, pp.629-641, 2012

Table 4.7- Regression analysis

Model 2			
Variable	**Coefficient**	**Std.Error**	**Probability**
Long-term debt ratio (LTDRit) as Dependent variable			
Constant	-0.037374	0.083846	0.656
BSit	0.233208	0.066151	0.000
ODit	0.073574	0.040575	0.070
OCit	0.040435	0.023572	0.087
MOWNit	-0.039714	0.019032	0.037
DREMit	-0.055951	0.009097	0.000
CDit	-0.009483	0.009904	0.339
PROFit	-0.163532	0.047132	0.001
SIZEit	0.006486	0.003749	0.084
LIQit	-0.010136	0.003749	0.025
ATit	0.535059	0.023654	0.000

Source: Nadeen A.and Zongjun W. / The international journal of business in society, Vol. 12 Issue: 5, pp.629-641, 2012

The regression analysis indicates that the coefficients of outside directors are statistically significant and positively related to both, total debt and long-term debt ratios. Typically, board with more independent directors can monitor the management more actively which induce managers to maximize the shareholders wealth, also good monitoring lead financial institutions and banks to provide loans with lower cost, hence, lower interest rate. This positive association between outside directors and capital structure is in line with the findings of many researchers such as Abor (2007), Anderson et al. (2004), Berger et al. (1997), and Pfeffer (1972).

Managerial ownership is negatively related to both capital structure measures, i.e., total debt and long-term debt ratios. According to agency theory higher managerial ownership aligns the interests of managers with outside shareholders and reduces the role of debt as a tool to mitigate the agency conflict. Furthermore, Braislfors et al. (2002) argue that as the level of managerial ownership increases, firm control passes from external shareholders to the managers and after a certain period of managerial ownership, managerial entrenchment leads to debt avoidance. This negative association is consistent with Friend and Lang (1988), Fosberg (2004) and Berger et al. (1994). The relationship is statistically significant only with the long –term debt ratio.

Regression analysis table shows that CEO duality is negatively related to the total debt ratio and the long-term debt ratio. Which means that when CEO serves also as chairman in the board, he tends to use lower leverage in order to avoid pressure and risk associated with the utilization of high debt ratio. However, the relationship is statistically insignificant. These findings is consistent with previous study results.

Profitability and liquidity are negatively and statistically significant to leverage which is in line with the pecking order hypothesis suggesting that firms with higher profits and liquidity tend to borrow less comparing to firms with lower profits and less liquid resources.

The positive association between firm size and both total debt ratio and long-term debt ratio is consistent with the trade-off theory which states that large firms should borrow more due to their ability to diversify the risk and to avail the benefit of tax shields on

interests payments and essentially the bulk of collaterals they have considered as securities for banks and other financial institutions.

Asset tangibility is positively and significantly related to long-term debt which is rational. As was mentioned before regarding the trade-off theory, the more are tangibility assets the more is the tendency to get loans, in other words, tangible assets constitute a positive sign to financial institutions, because tangible assets can be pledged as collaterals to lenders and thus allow companies to raise debt. Moreover, issuing debt secured by collateralizable assets may protect the debtholders from opportunistic behavior of managers because it restricts the borrower to use funds for a specified project (Nadeem Ahmed Sheikh & Zongjun Wang, 2012). Also tangible assets tend to reduce the financial distress costs because of the liquidation possibility in case of default. Considering these all factors lenders are expected to feel more confident and reluctant supplying loan to a company with high level of tangible assets than an identical company with less tangible assets on its balance sheet.

The negative relationship between assets tangibility and total debt ratio might be explained that the lack of securities in case of bankruptcy induce financial institutions to avoid extending loans (total debt which includes short –term debt) to firms , at the same time the costs of long-term debt are lower because banks charge relatively higher interest rates on short-term loans. Another possible explanation might be raised, according to Bas et al. (2009) and Degryse et al. (2010) the negative relationship between leverage and asset structure indicates that firms which employ lots of tangible assets seem to rely more on internal funds generated from these assets.

Both tables, 4.6 and 4.7 reveal that board size is significant and positively related to the total debt ratio and long-term debt. This finding is not consistent with the findings of previous studies conducted in this research where was found that large size of board may put pressure on managers to pursue lower leverage and hence, a negative relationship. However, the evidence of positive association, may due the fact that large size on board, as some researchers suggested such as Anderson et al. (2004), Abor (2007) and others, have more ability to raise funds externally essentially through

financial institutions and commercial banks that feel confident secure to deal with this kind of boards.

Director remuneration is significant and negatively related to the total debt ratio and long-term debt ratio which demonstrate that directors pursue lower leverage in order to avoid extra pressure and risk associated with the use of high risk, therefore enhancing their positions in the company.

4.3 Findings of the third study

Descriptive Statistics

Table 4.8 - Descriptive statistics

Variable	Mean	Std.Dev	Minimum	Maximum
TDRit	0.5618	0.23389	0.08	1.74
LTDRit	0.0804	0.12953	0.00	0.65
CGIit	5.2239	1.23322	2.00	8.00
BDit	2.8657	0.71231	1	3
ADit	0.7463	0.99217	1	4
BCit	1.5716	0.43569	0	1
PROFit	0.1164	0.13149	-0.02	1.48
SIZEit	15.9162	1.51268	12.19	19.67
LIQit	1.5716	1.18320	0.13	8.74

Source: Aamer S. et al. / the IUP journal of corporate governance. Vol. XIV, No. 2, 2015

The table 4.8 above shows that, the mean total debt ratio of the firms is 0.5618, which means that total debt represents more than half of the capital of the firms. That is, 56% of total assets are financed by debt capital which shows again that Pakistani firms rely more on debt rather than equity to finance their activities. In return equity capital accounts for 44% of total assets. As for the long-term debt it represents just 8% on average which reveals that the Pakistani listed firms tend to rely more on short term debt.

The CGI has a mean of 5.2239, which implies that generally sample firms tend to have better governance.

The average tenure of the CEO is 8.5 years. This period is higher than optimal tenure provided by Equilar data which is 5 years. For instance, in Singapore, the average CEO tenure is 6.73 years with the longest CEO reaching 31 years reported in 2001 by Mak and Li. In addition, Shakir (2009) discussed that CEOs are experiencing two phases in their term of office which is divided by benchmark of 10 years. The first ten years are young tenured CEOs. They are in the phase of building up their reputation and adapting to the companies environment so they strive to prove themselves. In effect, they do well for companies' performance. Then as they sit longer in the CEO position, they begin to feel more relaxed and lenient with their work or they become too absorbed in their own ambition that they refuse to accept changes in the environment.

The mean value of the board composition in Pakistani listed firms presented in the table is higher as compared, for instance, with the board composition of Indian country´s firms which is 70.9% (Singh & Kumar, 2012).

Profitability reveals a mean value of 0.1164 representing a return on assets of 11.64%. This value is low as compared to developed economies. This result may explain the dependence of Pakistani firms on debt, conversely, more profitable firms have additional choices to allocate their funds and making investment decisions because they can take additional advantage of the retained earnings.

Firm size has a mean of 15.9162. As larger is the firm the lower is its chances of bankruptcy. Overall Pakistani firms are classified as small and medium size (SME).

Liquidity ratio has a mean value of 1.576, which indicates that firms are better off. Means that they have a better ability to pay off its short-term debt using assets that can be easily liquidated.

Correlation analysis

Table 4.9 - Correlation analysis

Variable	BD	AD	BC	LIQ	PROF	SIZE
BD	1					
AD	-0.323**	1				
BC	0.222**	0.509**	1			
LIQ	0.115*	0.231**	0.232**	1		
PROF	0.002	-0.063	-0.007	-0.163**	1	
SIZE	-0.055	0.375**	0.197**	0.102*	-0.002*	1

*NOTE: *Correlation is significant at 0, 05 level; and ** Correlation is significant at 0.01 level,*
Source: Aamer S. et al. / the IUP journal of corporate governance. Vol. XIV, No. 2, 2015

The table 4.9 presents the pair-wise correlation matrix for all variables used in the model. The correlation matrix does not indicate any serious multicollinearity problem. Means that there is correlation between independent variables.

Regression analysis

Table 4.10 - Regression analysis

Model 1			
variable	**Coefficient**	**Std.Error**	**Probability**
Total debt ratio (TDRit) as Dependent variable			
constant	0.814	0.049	0.000
CGIit	-0.225	0.009	0.000
Long term debt (LTDit) as Dependent variable			
constant	0.190	0.028	0.000
CGIit	-0.120	0.005	0.000

Source: Aamer S. et al. / the IUP journal of corporate governance. Vol. XIV, No. 2, 2015

As can be seen in table 4.10, the coefficient of CGI is statistically significant and negatively related to both capital structure proxies (total debt ratio and long-term debt ratio). Which means that sound corporate governance leads to rigorous monitoring,

subsequently, less level of gearing. This finding is quite in line with Wen et al. (2012) who suggested that sound corporate governance supports lower leverage to avoid risk. Also this result is consistent with prior studies where was found a negative association between corporate governance and capital structure.

Table 4.11 - Regression analysis

Model 2			
Variable	**Coefficient**	**Std.Error**	**Probability**
Total debt ratio (TDRit) as Dependent variable			
constant	0.777	0.052	0.000
BDit	-0.042	0.017	0.414
ADit	-0.221	0.014	0.000
BCit	-0.110	0.030	0.051
Long term debt (LTDit) as Dependent variable			
constant	0.183	0.029	0.000
BDit	-0.026	0.009	0.610
ADit	-0.281	0.008	0.000
BCit	0.046	0.017	0.420

Source: Aamer S. et al. / the IUP journal of corporate governance. Vol. XIV, No. 2, 2015

Table 4.11 shows that coefficient of board of directors (independent directors; CEO duality and managerial ownership) is insignificant and negatively related to total debt and long-term debt ratios. A possible reason is that the larger are the independent directors the lower is the tendency to rely on high leverage in order to prevent pressure and especially risk associated with the use of leverage. Moreover, according to the findings of Sheikh and Wang (2012), independent directors can monitor the management more actively, and therefore force the management to choose those actions that maximize shareholders wealth.

The negative relationship between the both capital structure measures and managerial ownership is consistent with the findings of several researchers such as Friend and Lang (1988), Sheikh and Wang (2012), Bathala et al. (1994) and Fosberg (2004) .For instance

Sheikh and Wang(2012) documented that this negative relationship is in line with the agency theory, supporting that increased managerial ownership aligns the interests of managers with outside shareholders and reduces the role of debt as a tool to mitigate the agency conflict.

As for the negative and insignificant association between the CEO/chairman duality and capital structure measured by total debt ratio and long-term ratio, this might be explained, by the finding of wang (2012) which argued that leverage is significantly lower in firms where CEO does not appear to face strong monitoring. Also, when CEO serves as chairman, control and management are concentrated on hands of one person and hence assuring a good monitoring which may lead to lower leverage.

Table 4.11 showed also a negative but significant relationship between the coefficient of audit and total debt and long-term ratios, one of the explanations of this result is that an external auditor protects the wealth of shareholders and restricts the firms from borrowing at high cost which necessarily lowers the shareholders wealth (Saad 2010).

The coefficient of board committee which includes remuneration committee and nomination committee is found negative and insignificantly related to total debt ratio and positive and significantly related to long-term debt ratio. As for the first case, the nomination committee nominates the good and expert directors who may work on the benefit of shareholders and consequently rely less on higher leverage, concerning the remuneration committee its role is to check on director's remuneration in order to lead to the best interests of the firm. The positive relationship of board committee with long term debt ratio may because there is a tendency of borrowing more with less committee.

Table 4.12 - Regression analysis

Model 3			
Variable	**Coefficient**	**Std.Error**	**Probability**
Total debt ratio (TDR**it**) as Dependent variable			
Constant	0.860	0.092	0.000
CGIit	-0.131	0.008	0.001

Table 4.12 - Regression analysis (cont.)

Model 3			
Variable	**Coefficient**	**Std.Error**	**Probability**
Total debt ratio (TDR**it**) as Dependent variable			
PROFit	-0.005	0.067	0.893
SIZEit	0.012	0.006	0.753
LIQit	-0.635	0.008	0.000
Long -term debt (LTD**it**) as Dependent variable			
Constant	-0.058	0.064	0.364
CGIit	-0.230	0.005	0.000
PROFit	-0.043	0.047	0.368
SIZEit	0.226	0.004	0.000
LIQit	-0.223	0.005	0.000

Source: Aamer S. et al. / the IUP journal of corporate governance. Vol. XIV, No. 2, 2015

By looking to the table 4.12 one can notice that profitability and liquidity are negatively related to leverage which shows clearly that the sample Pakistani firms that have more profit and liquidity are more likely to borrow less comparing with firms with lower profit and less liquidity. This finding is consistent with pecking order theory mentioned in the previous studies which states that firms will first rely on internally generated funds(i.e. undistributed earnings), then they will turn to debt if additional funds are needed, and finally, they will issue equity to cover any remaining capital requirements (Myers and Majluf, 1984). However, liquidity is statistically significant while profitability is insignificant.

The Firm size is related positively with leverage. However this association is insignificant in terms of total debt ratio and significant in case of long-term debt ratio. This positive link is consistent with the findings of previous studies where was found that as larger is the firm the more improves it chances to have access to more debt extended by banks and other financial institutions, because these firms have established their reputation as successful organization and have tangible assets on their balance sheet that can be served as collaterals.

4.4 Findings of the forth study

Descriptive Statistics

Table 4.13 - Descriptive statistics

Variable	Observation	Minimum	Maximum	Mean	Std.Dev
DR	200	0.03	5.19	1.329	1.031
BS	200	5	14	8.470	1.928
MOWN	200	0	0.9251	0.240	0.267
ROA	200	-9.93	53.13	13.297	11.703
LIQ	200	-6.62	14.43	1.744	1.858
FS	200	12.75	19.84	16.051	1.441

Source: state bank of Pakistan's publications / companies' annual reports (Muhammad A.N et al. / Journal of Developing Areas, Vol.3, No.1.Winter 2017)

Table 4.13 presents the descriptive statistics of the variables considered in the study, both, dependent as well as explanatory variables.

Debt to Equity Ratio**:** the average debt to equity ratio, which is 1.330, shows excessive use of debt by Pakistani sample firms. A higher debt ratio leads to higher risk of default and volatility in earnings due to higher interest payment and may leads to the fast bankruptcy.

Board Size: Directors on board range from 5 to 14 in number and on average, there are 9 directors with a standard deviation of 1.928 in Pakistani firms. As a result, this number of boards is consistent with Jensen (1983) theory which states that ideally a board should have seven to eight members for effective functioning. Hence larger board in size may take better decisions and monitor management. As a result pursuing lower level of leverage in order to improve the firm´s value. Furthermore, larger boards put pressure on managers to follow lower debt equity ratio and enhance firm performance Berger (1997).

Managerial ownership: ranges from 0 to 92.51% the non-financial Pakistani firms have on average 24.09% managerial ownership. These findings is consistent with the agency theory, suggesting that managerial ownership aligns the interests of managers with outside shareholders and reduces the role of debt as a tool to mitigate the agency conflicts. This result is in line with several researchers' findings such as Fosberg (2004), Friend and Lang (1988) and Bathala et al. (1994).

Return on asset varies between -9.93 and 53.13. The negative value shows failure of management in generating returns out of firm's assets. In addition, the highest value of return on asset (53.13) indicates a very efficient utilization of firm's asset, but this is not the case with most firms in this sample. On the other hand, these findings are in line with trade-off theory which states that firms can use debt in order to increase their profitability which proves the excessive utilization of debt by sample firms.

Liquidity: it ranges between -6.62 and 14.43. Generally a firm with a higher current ratio is considered as better off, whereas the firm with a lower current ratio is supposed to be worse. On average firms in this sample have a value of 1.744, with a standard deviation of 1.858, which indicates that firms have a better ability to pay off its short-term debt using assets that can be easily liquidated.

Size: The effect of firm size on leverage is ambiguous. Rajan and Zingales (1995) argue that larger firms generally disclose more information to outsiders than smaller ones. Larger firms with less asymmetric information problems should tend to have more equity than debt and hence have lower leverage. Therefore, following the pecking order theory of capital structure, the size of the firm would be negatively related to leverage. On the other hand, according to the trade-off theory larger firms tend to be more diversified and thus less prone to bankruptcy. This argument suggests that firm size should be positively related to leverage. In our sample the smallest firm in this sample has a value of 12.75 and the largest firm has a value of 19.84, on average, firms have size of 16.05, as larger firm is, lower the chances of its bankruptcy due to diversified portfolios it has (N.Harmassi 2017).

Correlation analysis

Table 4.14 - Correlation analysis

Variable	BS	MOWN	ROA	LIQ	FS
BS	1				
MOWN	-0.27	1			
ROA	0.29	-0.22	1		
LIQ	0.18	-0.26	0.26	1	
FS	0.37	-0.28	0.16	-0.01	1

Source: state bank of Pakistan's publications / companies' annual reports (Muhammad A.N et al. / Journal of Developing Areas, Vol.3, No.1.Winter 2017)

The table above shows the correlation matrix of independent variables and we can see that there is no issue of serious multi-collinearity.

4.5 Findings of the fifth study

Regression model

Table 4.15 - Regression analysis

Variables	Coefficient	t-statistics	Probability
Intercept	5.7817	0.631820	0.5277
Board size	- 0.5015	-15.01225	0.0000
NED'S	0.5825	20.79942	0.0700
CEO/Chair	0.2735	0.136508	0.8915
MANGSHR	-0.7694	-1.168489	0.0029
INSHR	0.5291	17.62009	0.0000
Firm Size	0.5148	11.47233	0.0000
Profitability	-0.0964	-2.102811	0.0358

Level of significance 5%

Source: security and exchange commission of Pakistan (SECP) *(Tariq R. et al. / Journal of Insurance and Financial Management, Vol. 3, Issue 5 (2018) 18-28)*

$$LEVG_{it} = 5.7817 - 0.5015(\text{Log BSZ})_{it} + 0.5825(\%\text{NED's})_{it} + 0.5291(\%\text{INSTSHR})_{it} - 0.7694(\text{MANGSHR})_{it} - 0.0964(\text{ROA})_{it} + 0.5148(\text{SZE})_{it} + 0.2735(\text{CEO/Chairman})_{it} + \mu t$$

The regression analysis in table 4.15 shows that an increase of 1 percent in Profitability decreases leverage by 9.6 percent. Which indicates that the more profitable are firms the lower is the tendency to debt. This result is consistent with pecking order theory, which states that companies use internally generated funds as first priority to finance their projects, then they go for debt, and finally they issue equity as a last resort. Which is in line with previous studies.

Leverage is positively and significantly related with firm size. Means that a unitary increase in firm size leads to an increase in debt financing by 0.5148. This result is quite in line with previous findings where was one of the evidences that large firms tend to have more debt because of tangible assets they have that can be pledged as collaterals to banks and other financial institutions, and also may due to the fact that large firms have established their reputation as successful and secure organizations and hence have more chances to get loans.

Results reveal a significant and negative relationship between board size and leverage. As it was mentioned before in the majority prior studies, This negative link may due the fact that larger boards generally follow lower debt by putting pressure on managers to pursue lower level of gearing and focusing more on firm performance.

NED's are positively related to leverage. A possible explanation is that more outside directors assure rigorous monitoring which lets banks to feel secure and confident in dealing with these firms. However, this association is insignificant. This finding it may because in developing countries like Pakistan the families owned business and the NED's are not independent in true sense and hence ineffective in board. Therefore, the absence of INEDs and the domination of a board by a close family deprive Pakistani selected firms from sound corporate governance, thus, having a higher gearing level.

CEO/Chairman duality appeared positively related to leverage of the selected firms, as is shown in the table, when CEO duality increases one unit, the debt to equity increases by 0.2735. This result is not consistent with the findings of previous studies. This may because when CEO serves also as chairman, he may reduce information asymmetric problem and leads to higher excess to external financing. Furthermore, according to stewardship theory, CEO duality reduces communication conflict in an uncertain environment and thus creates a clear sense of strategic decision. The table 4.15 shows an insignificant relationship between CEO duality and debt which is in line with prior findings where was found the dependence of CEO duality because Pakistani firms are family owned.

Institutional shareholders appeared positive and statistically significant with leverage. A possible explanation is that, the presence of institutional shareholders in a company may assure an effective monitoring device over the company strategic decisions, encouraging lenders to deal with these firms. And hence the chances of getting more loans is higher.

Regression analysis table reveals that managerial Shareholding affect negatively leverage. In effect, an increase in managerial shareholding by 1 percent leads to decline in debt level by 0.76 percent. It may be reasoned that higher levels of managerial ownership results in managerial opportunism and ultimately leads to lower debt level (Brailsford, 2002). These results are supported with Friend, Irwin and Lang (1988) who discussed the role of managerial self-interest in making capital structure decisions. They suggested that in the absence of any outsider principal stockholder the tendency of low debt to equity ratio will continue which will lead to higher non diversifiable risk of debt to management.

Correlation analysis

Table 4.16 - Correlation analysis

Variables	1	2	3	4	5	6	7		8
Leverage	1								
Board size	-0.810*	1							
NED's	0.519		1						
CEO/Chair	0.390			1					
MANGSHR	-0.498*				1				
INSSHR	0.701*					1			
Firm size	0.594**						1		
Profitability	-0.691*								1

*** Correlation is significant at the 0.01 level (2-tailed)*

** Correlation is significant at the 0.05 level (2-tailed)*

Source: security and exchange commission of Pakistan (SECP) *(Tariq R. et al. / Journal of Insurance and Financial Management, Vol. 3, Issue 5 (2018) 18-28)*

Table 4.16 presents the correlation results between both, developed and developing countries firms operating in Pakistan.

The correlation table shows that there is a negative and significant relationship between profitability and leverage in terms of developed and developing countries firms, this goes along with the pecking order theory, means that firms have pecking order in the choice of financing their activities. In otherwise, firms prefer internal funds rather than external funds, this means that the more profitable is the firm, the less prone to debt will be. Instead, it uses their own profits to finance operations.

A negative and significant correlation is observed between managerial shareholding and leverage whether in terms of developed countries firms, such as US firms where Jensen et al. (1992) and Firth (1995) have documented that managers possess less diversified portfolios than other shareholders and thus have more incentive to reduce potential bankruptcy risk. Otherwise, higher managerial self-interests in long term sustainability of the company may induce managers to reduce gearing levels, Or in case

of developing countries firms such as Pakistani firms where Hassan and Butt (2009) have found a negative relation between managerial ownership and capital structure, either Huang and Song (2016) have found the same findings by studying the relationship between managerial ownership and leverage in Chinese listed firms and suggested that with the increase of managerial ownership , managers are more risk averse due to their non-diversified portfolios, thus they tend to borrow less to reduce the cost of bankruptcy.

Correlation analysis shows also negative and significant relationship between board size and leverage in developing and developed countries, this association can be explained that the pressure practiced on managers push them to adopt lower debt levels in order to enhance the firm performance. This result is in line with Friend and Lang (1988) findings who suggested that debt has a great non-diversifiable risk of insiders than it has for outside, investors, inducing insiders to maintain lower levels of leverage.

Firm size appeared positively and significantly correlated to debt, this is especially rational in case of developed countries where larger firms have more assets as collaterals, and it is easier for them to negotiate better terms with lenders. According to King (1977) larger firms have higher collateral values and lesser bankruptcy risks. Also Pandy et al. (2004) documented that larger firms are more diversified, they have higher capacity to meet up with interest payment. Conversely, the use of high level of debt by firms in developing countries is limited, may because their scales of operations are also limited which may prone these firms to risks associated with distress and bankruptcy, as well as loss of ownership.

The table 4.16 shows a positive correlation between non executive's directors and leverage in both developed and developing countries firms. According to AL-najjar and Hussainy (2011), firms with a large portion of non-executive members seem to have favorable and easier access to loans and therefore, applied a higher level of debt. Also Berger et.al. (1997) suggest that those CEOs that are more actively controlled and monitoring by more outside directors, causing managers to employ more debts and raise the firm leverage. However, this relationship is significant only in terms of developed countries firms where NED´s make their own independent decisions, on the contrary, it

is not significant in case of developing countries firms, because developing countries firms are generally family owned and NED's are working dependently in the firms.

CEO was found positively correlated to leverage. Stewardship theory predicts that when the CEO is also the chairman, both, power and authority will be concentrated in the hand of one person. According to this theory, the CEO duality decreases communication conflicts, and creates a clear sense of centralized decision making, and hence increasing firm debt usage (Mokarami et al., 2012). However, the relationship is significant in developed countries firms and not significant in case of developing countries firms where the business is owned by families.

Institutional shareholders are statistically significant and positively related with debt to equity ratio in both developed and developing countries firms. Joher Huson et al. (2006) suggest that this positive relationship may due the fact that institutional ownership plays an essential role as a monitoring device to minimize agency problem. Essentially, they bring down the company´s agency costs and reduce managerial opportunism. In addition, these investors themselves act as a source of long-term debt as they are debt providers to a company over whose board, they enjoy an influence, and hence, the higher are institutional shareholding of the firms, the more is the tendency to have higher debt.

CHAPTER 5. CONCLUSION AND RECOMMENDATIONS

5.1 Summary

This study empirically studies the impact of corporate governance on capital structure of non-financial listed companies over a different period of time, evidence from Pakistani listed firms.

The findings of the study suggest that the corporate governance is statistically significant and negatively related to capital structure. The analysis shows that corporate governance metrics are at some extent appropriate to explain the financial decision of Pakistani firms even though the corporate governance structure of Pakistani firms is not very well developed.

Results presented in this study showed some evidence that managerial ownership found to have negative and significant impact on debt to equity ratio ,i.e, used as the measure of capital structure ,that is to say, an increase in managerial shareholding leads to reduction in leverage, indicating that concentration of ownership leads managers pursuing lower gearing level.

Board size shows negative and significant association with debt ratio which indicates that the larger is the size of board the more owners put pressure on managers to pursue lower debt.

Size of the firm has a positive relationship which indicates that large firms can arrange debt financing due to long term relationship and better collateral offering.

Profitability is negatively related to debt equity ratio and is consistent with pecking order theory of capital structure proposed by Myers(1984), which states that as firms(in this case Pakistani firms) earn higher returns on assets they have the propensity to rely more on internal financing, hence, resulting on less dependence on debt.

Results reveal that representation of NEDs on board and CEO/chair Duality have no significant relationship with debt to equity ratio. Which arises the idea that NEDs in Pakistani firms are not independent due to the family companies dominated in Pakistan.

This research adds a new piece to the puzzle of capital structure and clarified the link between corporate governance and capital structure.

The findings showed a strong association between capital structure and corporate governance. Although important steps have been taken by the Pakistani government, essentially implement of corporate governance codes for all listed firms, for the development of corporate governance in the country, but still firms in Pakistan have weak mechanisms of corporate governance.

5.2 Recommendations and Perspectives for Future Research

The study is subject of various limitations. Primarily, the current economic conditions of the country might vary in the future. Secondly, even was conducted five empirical studies in this paper there are more companies also listed in Pakistan stock exchange if they were subject of study may they would provide different results, otherwise, by increasing the data sample might have different impact on statistics. Moreover, the study collect data only from companies listed in KSE. This means that the study findings are skewed and only informs on the relationship between corporate governance and capital structure of the companies listed in KSE. However the findings could be different in other companies which operate outside the KSE. Hence, future research is required to offer a further –in depth body of knowledge into the effect of corporate governance determinants on capital structure.

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APPENDICES

Appendix 1: Correlation analysis

Table 4.5- Correlation analysis

Variable	TDR	LTDR	BS	OD	OC	MOWN	DREM	CD	PROF	SIZE	LIQ	AT
TDR	1											
LTDR	0.60***	1										
BS	0.04	0.06*	1									
OD	0.11***	0.07**	0.13***	1								
OC	-0.1***	-0.06*	-0.01	-0.0**	1							
MOWN	0.14***	0.09***	-0.1***	-0.0**	-0.001	1						
DREM	-0.3***	-0.2***	0.26***	0.008	0.21***	-0.3***	1					
CD	0.06*	0.08**	-0.08**	0.033	-0.028	0.23***	-0.0***	1				
PROF	-0.5***	-0.3***	0.12***	-0.057	0.18***	-0.2***	0.38***	-0.1***	1			
SIZE	0.003	0.070*	0.39***	0.068*	0.12***	-0.3***	0.43***	-0.042	0.16***	1		
LIQ	-0.6***	-0.3***	-0.018	-0.0**	0.14***	-0.2***	0.23***	-0.1***	0.4***	-0.040	1	
AT	0.14***	0.69***	-0.024	0.023	-0.08**	0.15***	-0.1***	0.16***	-0.37**	0.07***	-0.3***	1

*Notes : * significance at 0,1 level ; ** significance at 0.05 level,*** significance at 0,01 level*
Source: Nadeen A.and Zongjun W. / The international journal of business in society, Vol. 12 Issue: 5, pp.629-641, 2012

Appendix 2: selected papers

Study 1:	**Data**
Arshad et al. (2009)	Sample: 59 firms Period: 2002-2005 Methodology: multivariate regression analysis. Theme: Impact of ownership structure and corporate governance on capital structure of Pakistani listed companies.
Study 2:	**Data**
Nadeem and Zongjun. (2012)	Sample: 155 firms Period: 2004-2008 Methodology: multiple regression analysis. Theme: Effect of corporate governance on capital structure: Empirical evidence from Pakistan
Study 3:	**Data**
Aamer et al. (2015)	Sample: 67 firms Period: 2007-2012 Methodology: Panel data analysis Theme: Investigating the impact of corporate governance on capital structure: A case of KSE-listed companies.

Study 4:	**Data**
Muhammad et al. (2017)	Sample: 40 firms Period: 2009-2013 Methodology: Panel data analysis Theme: Capital structure and corporate governance
Study 5:	**Data**
Rameez and Muhammad. (2018)	Sample: 10 firms (05 developed countries and 05 developing countries) Period: 2010-2016 Theme: Ownership structure, corporate governance and capital structure: Evidence from countries having FPI in Pakistan